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 IBM CORPORATION
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EXAMINER

FLEURANTIN, JEAN B

ART UNIT	PAPER NUMBER
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2172

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DATE MAILED: 01/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/282,860

Applicant(s)

BREZIN ET AL.

Examiner

Jean B Fleurantin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 and 34-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 11, 23, 24, 26-31 and 37-42 is/are rejected.
- 7) ☒ Claim(s) 7-10, 12-22, 25, 32 and 34-36 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Response to Amendment

1. Claim 33 (claim 42) is added.

Claims 1-32 and 34-42 remain pending for examination. Examiner discusses the newly added limitations of claim 33 (claim 42) in the following rejection.

Claim Objections

2. Claim 33 is objected to because of the following informalities: improper numbering. Appropriate correction is required.

The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not). When the application is ready for allowance, the examiner, if necessary, will renumber the claims consecutively in the order in which they appear or in such order as may have been requested by applicant.

[32 FR 13583, Sept. 28, 1967; revised, 62 FR 53131, Oct. 10, 1997, effective Dec. 1, 1997.]

Misnumbered claim 33 has been renumbered as claim 42.

Response to Applicant' Remarks

3. Applicant's arguments, see pages 11-16, filed October 30, 2003, with respect to claims 1-41 have been fully considered but are not persuasive because of following:

A. In response to applicant's arguments on page 12, that "Clark patent does not teach or suggest the invention as claimed." It is respectfully submitted that Clark and Gupta disclose the claimed invention as follow: Clark teaches a method to optimize information retrieval for a user based on the user's communication relationships, comprising the steps of: automatically building and storing a relationship data structure to represent the relationship information (thus, examining a user information resource for database objects and object relationships relevant to solving the optimization problem, transforming the database objects and object relationships into optimization metrics readable by a solver program, and storing the optimization metrics in a solver database accessible by the solver program; which is readable as automatically building and storing a relationship data structure to represent the relationship information)(see col. 3, lines 10-16);

automatically modifying an information retrieval query for said user based on the relationship data structure (thus, information extractor and relationship editor module 224 presents an interface to the application developer for entering information about the specific relationships to be used in extracting data from information resource 222, the application developer provides information to information extractor and relationship editor 224 about the objects in information resource 222, such as the specific object data to extract from information resource 222; which is readable as which is readable as automatically modifying an information retrieval query for said user based on the relationship data structure)(see col. 6, lines 23-26).

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Clark does not explicitly indicate steps of integrating relationship information for said user from multiple heterogeneous information sources. Gupta indicates an automated extraction of information from a plurality of semistructured information sources, (see col. 4, lines 32-33). Further, in column 3, lines 63-66, Gupta teaches a system for automated extraction of information from a plurality of semistructured information sources useful for incorporating the tuples into a relational database. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combined teachings of Clark and Gupta with integrating relationship information for said user from multiple heterogeneous information sources. Such modification would allow the teachings of Clark and Gupta to improve the accuracy and reliability of the optimization of system performance based on communication relationship, and to provide a system for automated extraction of information from a plurality of semistructured information sources, (col. 17, lines 14-16).

In response to applicant's argument on page 14, that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Thus, although Clark does not explicitly teach the claimed invention, it teaches the system in the art, see column 1, line 53 to column 2, line 49.

The claim does not capture the essence of the invention as argued in the Applicant(s)' remark page 15. Actually the Applicant(s)' is/are interpreting the claim narrow using the specification without considering the broad teachings of reference in the rejection.

Interpretation of Claims-Broadest Reasonable Interpretation, see MPEP 2111. During patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification.' Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51 (CCPA 1969).

Therefore, the rejection in last Office Action maintains.

Claim Rejections - 35 U.S.C. § 103

B. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 11, 23-24, 26-31 and 37-42 are rejected under 35 U.S. C. 103 (a) as being unpatentable over U.S. Patent No. 6,411,922 issued to Clark et al. in view of U.S. Patent No. 6,571,243 issued to Gupta et a. ("Clark"), ("Gupta").

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As per claims 1 and 40, Clark teaches a method to optimize information retrieval for a user based on the user's communication relationships, comprising the steps of: automatically building and storing a relationship data structure to represent the relationship information (thus, examining a user information resource for database objects and object relationships relevant to solving the optimization problem, transforming the database objects and object relationships into optimization metrics readable by a solver program, and storing the optimization metrics in a solver database accessible by the solver program; which is readable as automatically building and storing a relationship data structure to represent the relationship information)(see col. 3, lines 10-16);

automatically modifying an information retrieval query for said user based on the relationship data structure (thus, information extractor and relationship editor module 224 presents an interface to the application developer for entering information about the specific relationships to be used in extracting data from information resource 222, the application developer provides information to information extractor and relationship editor 224 about the objects in information resource 222, such as the specific object data to extract from information resource 222; which is readable as which is readable as automatically modifying an information retrieval query for said user based on the relationship data structure)(see col. 6, lines 23-26).

Clark does not explicitly indicate steps of integrating relationship information for said user from multiple heterogeneous information sources. Gupta indicates an automated extraction of information from a plurality of semistructured information sources, (see col. 4, lines 32-33). Further, in column 3, lines 63-66, Gupta teaches a system for automated extraction of information from a plurality of semistructured information sources useful for incorporating the

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tuples into a relational database. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combined teachings of Clark and Gupta with integrating relationship information for said user from multiple heterogeneous information sources. Such modification would allow the teachings of Clark and Gupta to improve the accuracy and reliability of the optimization of system performance based on communication relationship, and to provide a system for automated extraction of information from a plurality of semistructured information sources, (col. 17, lines 14-16).

As per claim 2, Clark teaches a method, wherein said step of modifying a query comprises the steps of prioritizing and filtering the retrieval of related (thus, a generic problem modeler which can examine an existing user information resource and transform the relevant information from the resource into data that can be stored in a solver database which is directly accessible by a problem solver; which is readable as wherein said step of modifying a query comprises the steps of prioritizing and filtering the retrieval of related; see col. 3, lines 41-45).

As per claims 3 and 4, the limitations of claims 3 and 4 are rejected in the analysis of claim 1, and these claims are rejected on that basis.

As per claim 5, Clark teaches a method, wherein the heterogeneous information sources are selected from the group consisting of one or more of: people-managed data sources; organization charts; mailing lists; calendar entries; personal address books; priority lists of contacts; and automated system log type information including phone logs and e-mail logs (thus,

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applications for optimization include telecommunications network optimization, supply chain optimization, logistics resource allocation in airports and ports, manpower scheduling, maintenance scheduling, production planning, vehicle dispatching, and technician dispatching; which is readable as wherein the heterogeneous information sources are selected from the group consisting of one or more of: people-managed data sources; organization charts; mailing lists; calendar entries; personal address books; priority lists of contacts; and automated system log type information including phone logs and e-mail logs; see col. 1, lines 31-36).

As per claims 6, 23, 26 and 30, Clark the claimed subject matter except the claimed assigning different preferences to the heterogeneous information sources. However, Gupta indicates automated extraction of information from a plurality of semistructured information sources, (see col. 4, lines 32-33). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Clark and Gupta with assigning different preferences to the heterogeneous information sources. Such modification would allow the combined teachings of Clark and Gupta to improve the accuracy and reliability of the optimization of system performance based on communication relationship, and to provide a system for automated extraction of information from a plurality of semistructured information sources, (col. 17, lines 14-16).

As per claim 11, Clark teaches a method further comprises the step of: assigning a weight to each information source based on a preference, (see col. 6, lines 40-50);

computing the aggregate communication intensity, based on the weight and the preference, (see col. 6, lines 47-50).

As per claim 24, Clark teaches a method further comprises the step of: recommending a communication channel based on a recipient characteristic, (see col. 3, lines 8-23).

As per claims 27, 28 and 29, Clark teaches a method further comprises the step of: detecting changes in the relationship information maintained (thus, the optimization metrics stored in the solver database are updated in real-time in response to changes in the data objects and the object relationships in the user information source; which is readable as detecting changes in the relationship information maintained; see col. 3, lines 36-39).

As per claim 31, Clark teaches a method further comprises the step of: labeling each link with a communication intensity vector, where each dimension of the communication intensity vector represents a communication intensity from an information source (thus, the format of the metrics is flexible and could be scalars function including functions of other metrics; which is readable as where each dimension of the communication intensity vector represents a communication intensity from an information source; see col. 6, lines 54-56).

As per claims 37 and 38, Clark teaches a method further comprises the step of: modifying the query to create one or more sub-queries, (see col. 10, lines 49-53).

As per claim 39, Clark teaches a method further comprises the step of: excluding results from the sub-queries, (see col. 10, lines 49-53).

As per claim 41, Clark teaches a method further comprises the step of: prioritizing and filtering a list of name to e-mail address mapping to facilitate sending e-mail (thus, a generic problem modeler which can examine an existing user information resource and transform the relevant information from the resource into data that can be stored in a solver database which is directly accessible by a problem solver; which is readable as prioritizing and filtering a list of name to e-mail address mapping to facilitate sending e-mail; see col. 3, lines 41-45).

As per claim 42, Clark teaches a method, further comprising the step of obtaining relevant information from the heterogeneous information sources, said information selected from the group consisting of one or more of: phone numbers; e-mail addresses; mailing addresses; office location; department; or manager, from various information sources (thus, supply chain optimization, logistics resource allocation in airports and ports, manpower scheduling, maintenance scheduling, production planning, vehicle dispatching, and technician dispatching; which is readable as wherein the heterogeneous information sources are selected from the group consisting of one or more of: people-managed data sources; organization charts; mailing lists; calendar entries; personal address books; priority lists of contacts; and automated system log type information including phone logs and e-mail logs; see col. 1, lines 31-36).

Claim Objections

4. Claims 7-10, 12-22, 25, 32 and 34-36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B Fleurantin whose telephone number is 703-308-6718.


The examiner can normally be reached on 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BREENE JOHN E can be reached on 703-305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.


Jean Bolte Fleurantin

2004-01-04


SHAHID ALAM
PRIMARY EXAMINER